General Information Matter

1. This is the first Office action on the merits of Application No. 10594870 filed on 09/21/2007. Claims 1-3, 5-11, and 38-53 are presented for examination.

Priority

This application is a 371 of PCT/GB05/01152 03/30/2005 and it also claims benefit of foreign priority under 35 U.S.C. 119(a-d) of a United Kingdom application, 0407194.0, filed 03/30/2004.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claims 1 and 41, examiner suggest applicant to amend the claims to "an image processing unit operable to process image data received by said receiver to generate sequence of [[a]] composite images."

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 06/16/2006 is in compliance with the provisions of 37 C.F.R. § 1.97. Accordingly, the examiner has considered all references cited in the submitted IDS(s).

Patentable Weight

As to Claims 1-3, 5, 7, 9-11, 38, 41-44, 46, 49-51, each claim employs a phrase of "OPERABLE TO" and is not a limitation able to distinguish over the prior art, it has been held that the recitation that an element such as "operable to", "adapted to", or "capable to" perform a function is not a positive limitation but only requires the ability to so perform. To expedite prosecution, the examiner has in this rejection provided references that are BOTH operable and that perform the recited function. Examiner suggests to applicant to delete "operable to", or changing it to a well-defined functional transitional phrase, such as "is/are". See MPEP 2111.04 and 2173.

Examiner's Note

Examiner has cited particular columns and line numbers or figures in the references as applied to the claims below for the convenience of the applicant. Although the specified

citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

A. Claims 1-2, 10-11, and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Kinjo (U.S. PgPub# 20030193582, hereinafter Kinjo).

As to Claim 1, Kinjo disclose an image generation apparatus, comprising:

a receiver operable to receive image data ***(Kinjo; Fig.1, [0128],the image processor processes the image – see blurring and emphasizing of an image of a snow-covered mountain***);

a selector operable to select one or more portions in an image as portions of an image which are to be emphasized ***(Kinjo; Fig.1,, [0128],[0129], the image processor separates the image – see example of snow-covered mountain into regions of mountain and non-mountain for different processing***); and

an image processing unit operable to process image data received by said receiver to generate sequence of [[a]] composite images ***(examiner interprets the identifying and processing of the identified regions (for example see Kinjo; [0128]- mountain and non-mountain) as generating a sequence of composite images)*** in which the portions of said composite image corresponding to said portions to be emphasised selected by said selector correspond to said portions of the image defined by data received by said receiver ***(Kinjo; [0128],[0129], the image processor separates the image – see example of snow-covered mountain into regions of mountain to emphasize***) and in which other portions of said composite image correspond to the other portions of the image defined by said data received by said receiver to which a blurring function has been applied ***(Kinjo;, [0128],[0129], the image processor separates the image – see example of snow-covered mountain into regions of non-mountain for blurring***).

As for independent claims 39 (***Kinjo, abstract, discloses a method)*** and 40 ***(Kinjo, abstract, discloses a processor implemented method, thus inherent to have a non-***

transient computer readable medium, such as RAM, Hard drive, etc.), they include essentially the same limitations as Claim 1 above, examiner refers applicant to the above discussion.

As to Claim 2, Kinjo disclose an image generation apparatus in accordance with claim 1 wherein said image processing unit comprises:

a blurring engine operable to generate a blurred image corresponding to an image received by said receiver ***(Kinjo;, [0128],[0129], inherent as the image processor blurs (the blurring engine) the background non-mountain for blurring***); and

a composite image generator operable to generate composite images comprising portions of images selected from images defined by image data received by said receiver and portions of images generated by said blurring engine on the basis of selections of portions of an image to be emphasised made by said selector ***(Kinjo; [0128],[0129], the image processor blurs the non-mountain region and combines with the mountain region to create an image (this acts as th composite image generator)***).

As to Claim 10, Kinjo disclose an image generation apparatus in accordance with claim 1 wherein said image processing unit is operable to process image data received by said receiver to generate a composite image in which portions of the image defined by data received by said receiver which do not correspond to portions to be emphasised selected by said selector correspond to said portions of the image defined by said data received by said receiver to which a number of different blurring functions have been applied ***(Kinjo;***

[0128],[0129], the image processor blurs the non-mountain region and combines with the un-blurred mountain region to create an image, thus there are a number of different blurring operations occurring (2 cases – blur or not blur)).

As to Claim 11, Kinjo disclose an image generation apparatus in accordance with claim 10 wherein said selector is operable to associate portions of said image with data indicative of a level of importance wherein said image processing unit is operable to generate a composite image in which portions of a composite image associated with decreasing levels of importance appear to be increasingly blurred ***(Kinjo; [0128],[0129], the image processor blurs the non-mountain region (less important) and combines with the un-blurred mountain region (important) to create an image, thus there are a number of different blurring levels occurring (2 cases – blur or zero blur)***).

As to Claim 38, Kinjo disclose an image generation apparatus in accordance with claim 1 further comprising:

one or more detectors operable to obtain readings of external conditions (***Kinjo; [0126] [0127], determines the photography type based on the representation keyword (external condition from the image itself)***); and

a status determination unit operable to determine a current status on the basis of readings received from said detectors (***Kinjo; [0126] [0127], based on the representation keyword, the image processor process (status, such as change size, blurring, chroma modification) the imagery***);

wherein said selector is operable to receive status data from said status determination unit and select areas to be emphasised based on received status data (***Kinjo; [0128],[0129], based on the status, the image is separated into regions such as mountain, non-mountain***).

B. Claims 41-45, 49-53, are rejected and claims 1-2, 10-11, and 38-40 are further rejected under 35 U.S.C. 102(b) as being anticipated by Gorday (U.S. PgPub# US 20040001220 A1, hereinafter Gorday).

As to Claim 41, Gorday disclose an image generation apparatus (***Gorday, Fig. 6, Fig 7***), comprising:

a receiver operable to receive image data (***Gorday, Fig 6, captures an image, and Fig. 7 processes the image***);

a selector operable to select one or more portions in an image as portions of an image which are to be *emphasized* (***Gorday, Fig 7 el 730 – el 724, [0024],[0034] , discloses isolating the background, detecting a face and blurring the background, examiner understands blurring is used to emphasize the face***); and

an image processing unit operable to process image data received by said receiver to generate sequence of [[a]] composite images (***Gorday, Fig 7 el 738 [0024],[0034] teaches blurring the background, examiner interprets the identifying and processing of the identified regions (for example, the face and background) as generating a sequence of composite images***) in which the portions of said composite image

corresponding to said portions to be emphasised selected by said selector correspond to said portions of the image defined by data received by said receiver outlined by a border of a defined colour (***Gorday, Fig. 3 – which illustrates a colored border, and Fig 7 el 738 [0024],[0034], identifying and processing the face***)

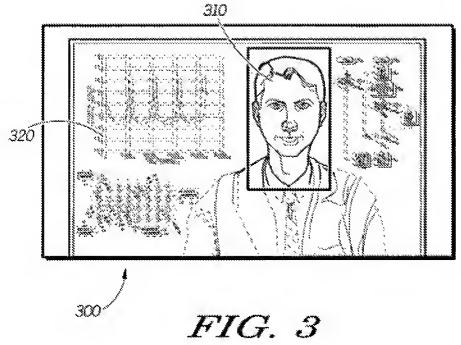

FIG. 3

and in which other portions of said composite image correspond to the other portions of the image defined by said data received by said receiver to which a blurring function has been applied (***Gorday, Fig 7 el 738 [0024],[0034] blurring the background***).

As for independent claims 52 (***Gorday, abstract, discloses a method)*** and 53 ***(Gorday, abstract, discloses a processor implemented method, thus inherent to have a non-transient computer readable medium, such as RAM, Hard drive, etc.***), they include

essentially the same limitations as Claim 1 above, examiner refers applicant to the above discussion.

As to Claim 42, Gorday disclose an image generation apparatus in accordance with claim 41 wherein said image processing unit comprises:

a blurring engine operable to generate a blurred image corresponding to an image received by said receiver (***Gorday, Fig.7, el. 738***); and

a composite image generator operable to generate composite images comprising portions of images selected from images defined by image data received by said receiver and portions of images generated by said blurring engine on the basis of selections of portions of an image to be emphasised made by said selector (***Gorday, Fig 7 el 738, [0024],[0034], blurring the background (as one image in the composite) and face (as the other), see figure 4 which is a composite image***).

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As to Claim 49, Gorday disclose an image generation apparatus in accordance with claim 41 wherein said image processing unit is operable to process image data received by said receiver to generate a composite image in which portions of the image defined by data received by said receiver which do not correspond to portions to be emphasised selected by said selector correspond to said portions of the image defined by said data received by said receiver to which a number of different blurring functions have been applied ***(Gorday; [0024], [0034], the image processor blurs the background (as one image in the***

composite) and the face (as the other), thus there are a number of different blurring operations occurring (2 cases – blur or not blur)).

As to Claim 50, Gorday disclose an image generation apparatus in accordance with claim 49 wherein said selector is operable to associate portions of said image with data indicative of a level of importance wherein said image processing unit is operable to generate a composite image in which portions of a composite image associated with decreasing levels of importance appear to be increasingly blurred ***(Gorday; [0024], [0034], the image processor blurs the background (less important) and combines with the un-blurred face (important) to create an image, thus there are a number of different blurring levels occurring (2 cases – blur or zero blur)***).

As to Claim 51, Gorday disclose an image generation apparatus in accordance with claim 1 further comprising: one or more detectors operable to obtain readings of external conditions (***Gorday; Abstract, "control signal",[0031], determines if there is a control signal present which dictates the processing on the image (external condition)***); and a status determination unit operable to determine a current status on the basis of readings received from said detectors (***Gorday; Abstract, "control signal",[0031], the presences of the control signal determines whether to blur the image or not (status)***); wherein said selector is operable to receive status data from said status determination unit and select areas to be emphasised based on received status data (***Gorday; [0031], the presences of***

the control signal determines whether to blur the background of the image, thus emphasize the face).

As for claims 1-2, 10-11, and 38-40 they include essentially the same limitations with the exception of whether a border is present or not, thus the cited art (Gorday) anticipates the claims as well. Examiner refers applicant to the rejection above, specifically Claim 41-45, 49-53, respectively for claims 1-2, 10-11, and 38-40.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

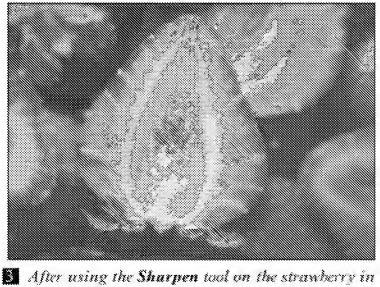
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

A.) Claims 3, 5-9, 43 and 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinjo in view of PhotoShop 6 as evidenced by Weinmann et al. ("Weinmann") ["Photoshop 6 for Windows and Macintosh: Visual QuickStart Guide", 25-JAN-2001, Peachpit Press]

As to Claim 3, Kinjo teaches an image generation apparatus in accordance with claim 2 wherein said blurring engine is operable to generate blurred images corresponding to images received by said receiver by deriving pixel values for pixels in a blurred image corresponding to pixels in said image defined by received image data ***(Kinjo;,***

[0128],[0129], the image processor separates the image – see example of snow-covered mountain into regions (pixel value) of non-mountain for blurring). However, Kinjo is silent to calculating a weighted average of received image data weighted by a function dependent upon the distance between a pixel in an image for which pixel data is being generated and a corresponding pixel in said image being utilized to calculate said weighted average.

Enter, Photoshop which discloses calculating a weighted average of received image data weighted by a function dependent upon the distance between a pixel in an image for which pixel data is being generated and a corresponding pixel in said image being utilized to calculate said weighted average (***see Weinmann, Chapter 18, Page 4, the Gaussian blur which is a weighted average based on the distance measure from the center of the kernel.***



3 *After using the* ***Sharpen*** *tool on the strawberry in the center, and the* ***Blur*** *tool on the rest of the image.*

Further see Chapter 6, page 3, which illustrates emphasizing a strawberry and blurring the background) .

It would have been obvious for one of ordinary skill in the art at the time of invention to combine the teachings of Kinjo and Photoshop, as all pertain to the art of image analysis and enhancement. One would have been motivated to combine said teachings, in order to emphasis the subject, as evidenced by Weinmann for Photoshop.

As to Claim 5 Kinjo teaches an image generation apparatus in accordance with claim 1 wherein said image processing unit is operable to generate a composite image by determining pixel data for areas of an image selected by selector as portions of an image to be emphasised by copying image data for said pixels from image data received by said receiver and to determine pixel data for the remaining portions of a composite image by calculating for pixels in said remaining portions of a composite image***(Kinjo;, [0128],[0129], the image processor separates the image – see example of snow-covered mountain into regions (pixel value) of non-mountain for blurring***). However, Kinjo is silent to calculating a weighted average of received image data weighted by a function dependent upon the distance between a pixel in an image for which pixel data is being generated and a corresponding pixel in said image being utilized to calculate said weighted average.

Enter, Photoshop which discloses calculating a weighted average of received image data weighted by a function dependent upon the distance between a pixel in an image for which pixel data is being generated and a corresponding pixel in said image being utilized to calculate said weighted average (***see Weinmann, Chapter 18, Page 4, the Gaussian blur which is a weighted average based on the distance measure from the center of the kernel. Further see Chapter 6, page 3, which illustrates emphasizing a strawberry and blurring the background***) .

It would have been obvious for one of ordinary skill in the art at the time of invention to combine the teachings of Kinjo and Photoshop, as all pertain to the art of image analysis and enhancement. One would have been motivated to combine said teachings, in order to emphasis the subject, as evidenced by Weinmann for Photoshop.

As to Claim 6, the combination of Kinjo and Photoshop teach an image generation apparatus in accordance with claim 5 wherein said function dependent upon distance comprises a Gaussian function (***see Weinmann, Chapter 18, Page 4, the Gaussian blur which is a weighted average based on the distance measure from the center of the kernel***)

As to Claim 7, the combination of Kinjo and Photoshop teach an image generation apparatus in accordance with claim 5 wherein said image processing unit comprises:

a data store storing function data defining a plurality of functions operable to derive composite image data from image data received by said receiver in which some portions of a composite image correspond to said portions of the image defined by data received by said receiver and in which other portions of said composite image correspond to the other portions of the image defined by said data received by said receiver to which a blurring function has been applied (***Kinjo; [0125], [0128] - [0129], discloses a number of functions – blurring, non blurring, contrast adjustment, sharpness adjustment, enlarging of regions, which is enabled based on the registered image.***;

a selection unit operable to select function data defining a function from said data store on the basis of the one or more areas selected as portions of an image to be emphasised by said selector (***Kinjo; [0128],[0129], based on the status, the image is separated into regions such as mountain for emphasis, non-mountain for blurring***); and

a processing unit operable to generate a composite image utilising image data received by said receiver and function data selected by said selection unit (***Kinjo; [0128],[0129], based on the status, the image is separated into regions such as mountain, non-mountain for different processing, then recombined***).

As to Claim 8, the combination of Kinjo and Photoshop teach an image generation apparatus in accordance with claim 7 wherein said selector is responsive to receipt of status data identifying a default status to cause said selector to identify the entirety of an image as being the portion of an image to be emphasized (***inherent/obvious to emphasize***

the entire image e.g. no processing necessary or contrast enhance the entire image – Weinmann Chapter 6, page 3, illustrates that blurring is optional to the user).

As to Claim 9, the combination of Kinjo and Photoshop teach an image generation apparatus in accordance with claim 7 further comprising:

a display generation unit (***Kinjo see Fig. 3, step 130***) operable to generate image data defining an image identifying at least one reading obtained by said one or more detectors and to pass generated images to said receiver (***Kinjo; Fig. 3 [0126] [0127], determines the photography type based on the representation keyword (external condition from the image itself), processes this image nased on the representation keyword***).

B. Claims 43, 44-48 are rejected and claims 3, 5-9 are further rejected rejected under 35 U.S.C. 103(a) as being unpatentable over Gorday (U.S. PgPub# US 20040001220 A1, hereinafter Gorday) in view of PhotoShop 6 as evidenced by Weinmann

As to Claim 43, Gorday teaches an image generation apparatus in accordance with claim 2 wherein said blurring engine is operable to generate blurred images corresponding to images received by said receiver by deriving pixel values for pixels in a blurred image corresponding to pixels in said image defined by received image data (***Gorday, Fig 7 el 738 [0024],[0034] the image processor separates the image – see example of face and non face region, and further teaches blurring the background***). However, Gorday is

silent to calculating a weighted average of received image data weighted by a function dependent upon the distance between a pixel in an image for which pixel data is being generated and a corresponding pixel in said image being utilized to calculate said weighted average.

Enter, Photoshop which discloses calculating a weighted average of received image data weighted by a function dependent upon the distance between a pixel in an image for which pixel data is being generated and a corresponding pixel in said image being utilized to calculate said weighted average (***see Weinmann, Chapter 18, Page 4, the Gaussian blur which is a weighted average based on the distance measure from the center of the kernel. Further see Chapter 6, page 3, which illustrates emphasizing a strawberry and blurring the background***) .

It would have been obvious for one of ordinary skill in the art at the time of invention to combine the teachings of Gorday and Photoshop, as all pertain to the art of image analysis and enhancement. One would have been motivated to combine said teachings, in order to emphasis the subject, as evidenced by Weinmann for Photoshop.

As to Claim 44 Gorday teaches an image generation apparatus in accordance with claim 1 wherein said image processing unit is operable to generate a composite image by determining pixel data for areas of an image selected by selector as portions of an image to be emphasised by copying image data for said pixels from image data received by said receiver and to determine pixel data for the remaining portions of a composite image by calculating for pixels in said remaining portions of a composite image (***Gorday, Fig 7 el 738***

[0024],[0034] the image processor separates the image – see example of face (to be emphasized) and non face regions (pixel values), and further teaches blurring the background).. However, Gorday is silent to calculating a weighted average of received image data weighted by a function dependent upon the distance between a pixel in an image for which pixel data is being generated and a corresponding pixel in said image being utilized to calculate said weighted average.

Enter, Photoshop which discloses calculating a weighted average of received image data weighted by a function dependent upon the distance between a pixel in an image for which pixel data is being generated and a corresponding pixel in said image being utilized to calculate said weighted average (***see Weinmann, Chapter 18, Page 4, the Gaussian blur which is a weighted average based on the distance measure from the center of the kernel. Further see Chapter 6, page 3, which illustrates emphasizing a strawberry and blurring the background***) .

It would have been obvious for one of ordinary skill in the art at the time of invention to combine the teachings of Gorday and Photoshop, as all pertain to the art of image analysis and enhancement. One would have been motivated to combine said teachings, in order to emphasis the subject, as evidenced by Weinmann for Photoshop.

As to Claim 45, the combination of Gorday and Photoshop teach an image generation apparatus in accordance with claim 44 wherein said function dependent upon distance comprises a Gaussian function (***see Weinmann, Chapter 18, Page 4, the Gaussian blur***

which is a weighted average based on the distance measure from the center of the kernel)

As to Claim 46, the combination of Kinjo and Photoshop teach an image generation apparatus in accordance with claim 5 wherein said image processing unit comprises:

a data store storing function data defining a plurality of functions operable to derive composite image data from image data received by said receiver in which some portions of a composite image correspond to said portions of the image defined by data received by said receiver and in which other portions of said composite image correspond to the other portions of the image defined by said data received by said receiver to which a blurring function has been applied (***Gorday; Fig. 7, illustrates the different functions available, [0034] discusses blurring the background regions based on the presences of a control signal [0031]***);

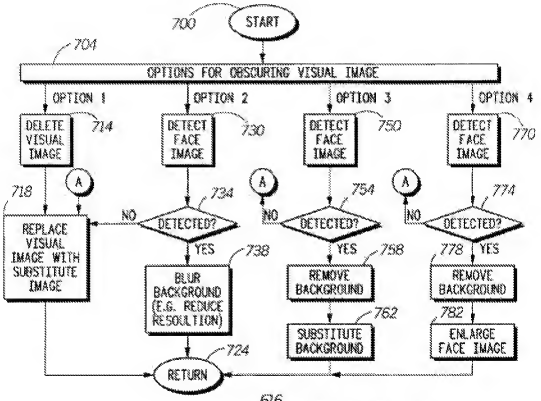


FIG. 7

a selection unit operable to select function data defining a function from said data store on the basis of the one or more areas selected as portions of an image to be emphasised by said selector (***Gorday; [0031], the presences of the control signal (option) determines whether to blur the background of the image, thus emphasize the face***);

and

a processing unit operable to generate a composite image utilising image data received by said receiver and function data selected by said selection unit (***Gorday; Fig.7,see return, which returns the processed image (composite image)***).

As to Claim 47, the combination of Gorday and Photoshop teach an image generation

apparatus in accordance with claim 46 wherein said selector is responsive to receipt of status data identifying a default status to cause said selector to identify the entirety of an image as being the portion of an image to be emphasized (***Gorday, [0034], if no face is detected, the image is not processed – e.g. no background blurring (de-emphasis) further, Weinmann Chapter 6, page 3, illustrates that blurring is optional to the user***).

As to Claim 48, the combination of Gorday and Photoshop teach an image generation apparatus in accordance with claim 47 further comprising:

a display generation unit (***Gorday see Fig. 7***) operable to generate image data defining an image identifying at least one reading obtained by said one or more detectors and to pass generated images to said receiver (***Gorday; Fig. 7, el 704, determines the options (control signal which represents the detector) for obscuring the image, the image is then processed (given to the receiver)***).

As for claims 3, 5-9, and 43, 44-48 they include essentially the same limitations with the exception of whether a border is present or not, thus the cited art (Gorday) anticipates the claims as well. Examiner refers applicant to the rejection above, specifically Claim 43, 44-48, respectively for claims 3, 5-9.

Comment on 35 USC § 101

Independent claims 1 and 41 is drawn to "apparatuses" defined in terms of "units", "receivers", and "selectors". Given the broadest reasonable interpretation of claims 1 and 41 in light of the specification and consistent with a conclusion reached by one of ordinary skill in the art, the claimed apparatus is construed by the examiner as software (or computer program) residing and running on one or more hardware based devices, such as a computer or one or more computer components. Claim 1 and its dependents are therefore drawn to a statutory machine.

Claim 39 and 52 are drawn to a process/method of image generation, where the various steps of the claims, all of which are central to the purposes of the invention, could not be reasonably performed without the use of a cooperating programmed computer/processor, and further the generation of images is not an abstract idea. Claims 39 and 52 and their dependents thus pass the machine-or-transformation test *(In* re Bilski) and are statutory.

Claim 40 and 53 are drawn to a non-transitory computer readable medium, and given the broadest reasonable interpretation of the claim in light of the specification and Official Gazette Notice (1251 OG 212, made available February 23, 2010), concludes that the claim fall within a statutory category.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thomas; US 7027659 B1, Method and apparatus for generating video images

Acker; US 6373499 B1, Automated emphasizing of an object in a digital photograph

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Heidemann:

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- fax (571) 270-6173, or
- e-mail jason.heidemann@uspto.gov.

The examiner can normally be reached on Monday - Thursday/7:30 A.M. to 5:00 P.M.. For e-mail communications, please note MPEP 502.03, which states, in relevant part, "[w]ithout a written authorization by applicant in place, the USPTO will not respond via Internet e-mail to any Internet correspondence which contains information subject to the

confidentiality requirement as set forth in 35 U.S.C. § 122." A sample authorization form which may be used by applicant can be found in MPEP 502.03 section II.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-8300 for After Final communications. TC 2600's customer service number is 571-272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Heidemann/ 10/14/2011
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Dated: October 18, 2011